

DOCKET NO.: ISPH-0595
Appl. No. 09/923,515

PATENT

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently Amended): A non-cleaving antisense oligonucleotide 12 to 30 nucleobases in length targeted and 100% complementary to a sequence within the range of nucleotides 174 to 203 of a nucleic acid molecule encoding human apolipoprotein (a) (SEQ ID NO: 3), wherein said oligonucleotide specifically hybridizes with said nucleic acid molecule encoding human apolipoprotein (a) and inhibits the expression of human apolipoprotein (a), and

wherein said oligonucleotide comprises at least one modification selected from the group consisting of a modified internucleoside linkage, a modified sugar moiety, and a modified nucleobase.

2-4 (Canceled)

5 (Previously Presented): The oligonucleotide of claim 1 wherein the modified internucleoside linkage is a phosphorothioate linkage.

6 (Canceled)

7 (Previously Presented): The oligonucleotide of claim 1 wherein the modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.

8 (Canceled)

9 (Previously Presented): The oligonucleotide of claim 1 wherein the modified nucleobase is a 5-methylcytosine.

DOCKET NO.: ISPH-0595
Appl. No. 09/923,515

PATENT

- 10 (Previously Presented): The oligonucleotide of claim 1 which is a chimeric oligonucleotide.
- 11 (Canceled)
- 12 (Previously Presented): A composition comprising the oligonucleotide of claim 1 and a pharmaceutically acceptable carrier or diluent.
- 13 (Original): The composition of claim 12 further comprising a colloidal dispersion system.
- 14 (Canceled)
- 15 (Previously Presented): A method of inhibiting the expression of human apolipoprotein (a) in cells or tissues comprising contacting cells or tissues *in vitro* with the compound of claim 1 so that expression of human apolipoprotein (a) is inhibited.
- 16-20 (Canceled)
- 21 (New) An antisense oligonucleotide 12 to 30 nucleobases in length targeted to a nucleic acid molecule encoding apolipoprotein(a), wherein said oligonucleotide
- is specifically hybridizable with at least an 8-nucleobase portion of a sequence within the range of nucleotides 174 to 203 of SEQ ID NO: 3; and
- inhibits the expression of human apolipoprotein(a).
- 22 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide is specifically hybridizable with at least an 8-nucleobase portion of a sequence within the range of nucleotides 174 to 193 of SEQ ID NO: 3.
- 23 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide has 100% complementarity to SEQ ID NO: 3.

DOCKET NO.: ISPH-0595
Appl. No. 09/923,515

PATENT

24 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide is a chimeric oligonucleotide.

25 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide comprises at least one modified internucleoside linkage.

26 (New) The antisense oligonucleotide of claim 25, wherein said modified internucleoside linkage is a phosphorothioate linkage.

27 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide comprises at least one modified sugar moiety.

28 (New) The antisense oligonucleotide of claim 27, wherein said modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.

29 (New) The antisense oligonucleotide of claim 21, wherein said oligonucleotide comprises at least one modified nucleobase.

30 (New) The antisense oligonucleotide of claim 29, wherein said modified nucleobase is a 5-methylcytidine.

31 (New) An antisense oligonucleotide 12 to 30 nucleobases in length, wherein said oligonucleotide

comprises at least an 8-nucleobase portion of the nucleobase sequence of SEQ ID NO: 11;

has 100% complementarity to a nucleic acid molecule encoding human apolipoprotein(a) (SEQ ID NO: 3); and

inhibits the expression of human apolipoprotein(a).

32 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide is 20 nucleobases in length.

DOCKET NO.: ISPH-0595

Appl. No. 09/923,515

PATENT

- 33 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide comprises the nucleobase sequence GGCAGGTCCTTCCTGTGACA (SEQ ID NO: 11).
- 34 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide is a chimeric oligonucleotide.
- 35 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide comprises at least one modified internucleoside linkage.
- 36 (New) The antisense oligonucleotide of claim 35, wherein the modified internucleoside linkage is a phosphorothioate linkage.
- 37 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide comprises at least one modified sugar moiety.
- 38 (New) The antisense oligonucleotide of claim 37, wherein said modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.
- 39 (New) The antisense oligonucleotide of claim 31, wherein said oligonucleotide comprises at least one modified nucleobase.
- 40 (New) The antisense oligonucleotide of claim 39, wherein said modified nucleobase is a 5-methylcytidine.